Experiences with Resource Mobilization Strategies in Five Developing Countries -- What Can We Learn?

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1. Introduction

Rich in centuries old tradition and breathtaking natural beauty, Africa continues to fascinate visitors even today. Home to over 10% of the world's population, Africa is the land of Kilimanjaro (5895 m) in Tanzania and the Qattarah Depression (-133 m) in Egypt. East Africa's lake-filled Great Rift valley is one of the continent's many spectacular features, competing at once with the Sahara and Kalahari deserts and with Fincha (Ethiopia), Victoria (Zambia-Zimbabwe) and Tugela (South Africa) waterfalls for a place in the natural wonders of the earth.

Yet the people of Africa are among the world's poorest. Spread over 50 nation states, the nearly 500 million people in sub-Saharan African countries have an average per capita income of less than $400. The average life expectancy in this region is 55 years, which is 11 less than the average for other low income countries in Asia. The median age at death is 5 years, and infant mortality rates are 55% higher than other low income countries of the world. A large proportion of the population suffers from malaria and tuberculosis, and several countries face a serious threat from AIDS.

Allocation of resources among the various competing needs becomes very challenging when the shortage is as serious as it is in Africa. Few would dispute that health care is a basic requirement that must be made available to all, and few would argue strongly against the public and merit good components of health. In fact most governments have taken it upon themselves to provide health care as a rightful privilege for its citizens, and have readily accepted the Alma Ata declarations of free health care for all. However, the best of intentions can only be carried out as far as the resources allow them to be. Not unexpectedly, national health expenditures in many of these countries have remained generally low in per capita terms, with many countries spending an average of only $5 per capita. And when diseases and expectations increase the demand for health care at a time when its supply is necessarily constrained by a weakening economy, governments have to start considering difficult measures and making difficult choices.

In their search for sustainable remedies to feed the health sector, many African countries have adopted or are considering new strategies for increasing the overall resource level in the health sector, as well as resources available to support government provided services. These strategies include different combinations of increased allocations from government revenues, special taxes, user charges, social insurance, and private insurance. Different countries have adopted a different mix,

and have gone through a variety of different experiences. These experiments have drawn the attention of governments and international donors alike, and widespread interest has been generated in understanding the mechanisms and analyzing the results. Yet, while a large number of studies and analyses have been carried out on specific revenue mobilization methods (see, for instance, Shaw and Griffin, 1995, Creese and Kutzin, 1994, Kutzin, 1993, Vogel, 1993, McPake, 1993, Carrin, 1992, and Griffin, 1988), relatively few attempts have been made to look at the country focus and the trade-offs between various methods of raising resources.

As part of the overall strategy of US Agency for International Development (USAID) to conduct research into matters of critical importance to policy makers in developing countries, the Data for Decision Making (DDM) project at Harvard University was commissioned by the Health and Human Resources Analysis for Africa (HHRAA) project of the Africa Bureau to conduct five case-studies on resource mobilization. These studies were conducted in Cote d'Ivoire, Senegal and Zimbabwe within sub-Saharan Africa, and in Bolivia and Sri Lanka outside Africa.

Specifically, this study seeks to provide a systematic review of different experiences with specific resource mobilization methods in terms of the major objectives of these efforts. The country case studies conducted for the DDM-HHRAA project emphasize a country focus in contrast to a method focus, and assess national strategies and experience with generating resources for the health sector, both public and private. In each case our interest was in understanding the range of policies and actions used to achieve increased resources, in contrast to examining one specific approach to resource mobilization (e.g., user fees, insurance, etc.) in each country. Overall, four general questions were examined in each case:

- What was the overall impact on health care resources of the strategies adopted?
- What was the relative effect on government and non-government sources of finance?
- Can the contributions of specific resource mobilization strategies be identified?
- What was the effect on resources for public goods and primary health care services, if any?

This country focus also allowed us to answer questions about specific resource mobilization methods. In particular, the case studies examined each resource mobilization method adopted in the host country, and looked at:

- reasons for choosing the particular strategy or mix of strategies;
- the different design and implementation mechanisms of the individual strategies;

- the impact of various resource mobilization strategies on the national health system of the country; and
- lessons learned.

At the onset of the project, a provisional conceptual framework was proposed by the principal investigators at Harvard University. This framework (Chawla and Berman: "Resource Mobilization: Methodological Guidelines", 1995) was intended to guide the assessment of the resource mobilization strategies in each participating country, and assist in organizing the presentation of the data and results for each study. This general framework was subsequently modified by the project teams, based on the exigencies of each study. The five studies consisted of a combination of qualitative and quantitative analyses of the experience of different resource mobilization strategies. The four evaluative criteria used in assessing hospital autonomy in each country, based on the project guidelines, were: **contribution to resources for the health sector, efficiency**, **equity**, and **quality of care**. The research methodology employed in undertaking the studies included secondary data collection and analysis, direct observation by the study teams, interviews, and field surveys.

One issue that the project researchers had to confront in some countries was that revenue raising efforts were heavily biased in favor of one or two specific methods. In one way this in itself was a useful finding insofar as it pointed to the existing potential for tapping hitherto untried resources. At the same time, we did not have the opportunity of considering any country that had resources allocations from general taxes, social insurance, private insurance and out of pocket expenditures at the same time, all of which provided significant contributions for the health sector. However, we felt there were important lessons to be learned from these experiences. First, the countries differed in the combination of most favored methods, and this provided interesting insights into the possible trade-offs. Second, there are many commonalities across these countries, not only in terms of their economic and health indicators, but also in terms of which method contributes the most to health financing. Third, if the countries in our list did in fact choose one or two methods predominantly, this might, in fact, be indicative of existing limitations in going all out on all revenue raising fronts.

An incontrovertible overall conclusion of the five case-studies undertaken as part of this project is that public sector user fees have made little contribution to overall resource mobilization for the health sector, and that out of pocket expenditures by households, mostly on services provided by nongovernment providers, and government taxation continue to be the most significant contributors of health financing.

The five country reports present the results, conclusions, and recommendations of each study. Executive summaries from these studies are included as appendices to this paper. In this synthesis paper we draw on the conclusions of these five studies

to derive broader lessons on formulating and implementing revenue raising strategies in developing countries. The rest of the paper is organized as follows. In section II, we summarize the key findings of the five case studies; and in Section III, we advance certain propositions about resource mobilization for the health sector. An important caveat for readers to keep in mind is that it is hard in empirical field studies, such as this one, to reach definitive conclusions that have universal applicability. All suggestions and recommendations made in this study are based on five experiences only, and need to be tested over a larger sample.

2. Summary of Findings

The Data for Decision Making (DDM) Project at Harvard University collaborated with national researchers and carried out five international case studies on the experiences in developing countries with different resource mobilization strategies. Three of these case studies were in sub-Saharan Africa, in Cote d'Ivoire, Senegal and Zimbabwe, and two outside of Africa, in Bolivia and Sri Lanka.

Resource mobilization refers to health financing strategies to generate resources to support or pay for the goods and services used in the production and delivery of health care. The major strategies for resource mobilization include:

- increased allocations from general government revenue;
- specially targeted public revenue-raising efforts;
- contributions from private donors, and foreign assistance;
- social health insurance;
- private health insurance; and
- user fees.

A large number of studies by different researchers have examined many aspects of implementation and results of these experiments. These studies vary in their objectives, emphasis, research methodology, quality and coverage of data, identification of critical variables used in the analysis, and interpretation of results. The main focus of this HHRAA project is to update and expand the analysis in these studies, with a focus on both the effects of different types of resource mobilization strategies and the implementation issues that must be considered by decision makers to choose appropriate strategies.

The following schema guided the research strategy:[1]

Each case study reviewed recent experiences of the host country with resource mobilization strategies, and assessed the overall impact on health care resources of each of the strategies adopted. The impact of each method was assessed in terms of its effect on government and nongovernment sources of finance, on resources for public goods and primary health care services, efficiency, equity, and quality of care.

1/ See Chawla and Berman (1995): *Resource Mobilization: Methodological Guidelines* for details.

Table 1

Research Strategy

General Topics and Countries To Be Selected	***Overall Assessment Criteria***	***Analysis of Specific Resource Mobilization Strategies***
Overall policy goal: Increasing resources to finance the health sector (Countries to be selected whose explicit policy objective is to increase finance for health)	1. Was more raised? 2. What was the effect on public and private expenditure? (levels and composition) 3. What was the contribution of different sources of funds and resource mobilization strategies to the total? 4. What was the effect on "public health" spending specifically?	1. Process (e.g. legal, implementation, and management issues) 2. Assessment (efficiency, equity, quality, revenue generation, sustainability)

Each study was designed to focus on no more than three different resource mobilization strategies used by the host country. In each case the researchers built upon the initial methodological framework proposed by the principal investigators in Chawla and Berman (1995): *Resource Mobilization: Methodological Guidelines*, and developed country-specific methods to assess performance criteria and the policy environment for each resource mobilization strategy. Each study used a mix of qualitative and quantitative data collection techniques.

Potential host countries (table 2) were selected on the criterion for selection of potential case study countries is that at least two of the main resource mobilization mechanisms be present at a national level. This criterion led to the exclusion of, for example, countries in which user fees had only been implemented in selected pilot districts. Besides the requirement that at least three of the potential case study countries be in sub-Saharan Africa, two main criteria were used in selecting the host countries. First, the host country should have at least two main resource mobilization mechanisms at the national level. Second, the potential host countries should be at comparable levels of economic development.

The rest of this synthesis document is based on the reports of the researchers on resource mobilization in different countries. We draw heavily from Robles, Munoz and Chawla (1996): "Resource Mobilization in Bolivia's Health Sector"; Diop, Adama and Ette (1996): "Resource Mobilization in Cote d'Ivoire's Health Sector"; Diop and Codjia (1996): "Resource Mobilization in Senegal's Health Sector"; Rannan-Eliya and de Mel (1996): "Resource Mobilization in Sri Lanka's Health Sector"; and Normand, Chapman, Chawla, Mudyarabikwa and Needleman (1996): "Resource Mobilization in Zimbabwe's Health Sector". We do not refer to these authors again, but would like our readers to know that all references to the five case studies are taken from these studies only.

Table 2

The Host Countries: Selected Characteristics

Country	*Population (millions)*	*GNP per capita (1991)*	*Life Expectancy at Birth*	*Infant Mortality Rate (1991)*	*Adult Iliteracy (percent)*
Bolivia	7.3	650	59	83	23
Cote d'Ivoire	12.4	690	52	95	46
Senegal	7.6	720	48	81	62
Sri Lanka	17.2	500	71	18	12
Zimbabwe	10.1	650	60	48	33

Source: WDR 1993

While there are marked variations in the mix of financing arrangements across the countries in our sample, the general pattern seems to be that out-of-pocket expenses and revenue from taxes are the most significant source of health care finance, with insurance and special schemes providing the balance (table 3).

Basic Questions Posed in Study

This study attempted to answer several questions, and we discuss the findings below.

Is there evidence of an increase in health expenditures over time?

Governments in many countries are attempting to increase the total amount of resources devoted to health. However, in none of the countries studied was it possible to make an assessment of whether total health sector resources are increasing, because there is a general lack of information on total national health spending. If policy-makers intend to increase resource mobilization, they must first invest in the information systems (e.g., National Health Accounts), which allow them to meet that goal, and to monitor progress to that goal.

Available evidence paints a mixed picture of public spending and contribution of insurance to financing the health sector.

Are some sources of revenues growing more rapidly than others?

Different sources of revenues have grown in some countries, but not in others. The overall picture is mixed, and varies depending on the time-frame chosen. For instance, in Bolivia general revenue financing fell drastically before 1986 from 2.3% in 1980 to 0.4% in 1986. After macroeconomic stabilization in 1986-87, general revenue spending on health increased in real terms from 0.4% of GDP to 1.7% in

Table 3

Health Care Financing in Five Countries, by Source of Funds (as percentage of total funding for the health sector; figures in brackets denote expenditure as a percentage of GDP)

Country	*Revenue From Taxes*	*Out of Pocket Spending*		*Social Insurance*	*Private Insurance*	*NGO's and Donor Assistance*
		Private	*Public Sector User Fees*			
Bolivia (1995)	33% (2.0%)	24% (1.4%)	negligible	33% (2%)	2% (0.09%)	9% (0.5%)
Cote d'Ivoire (1990)	< 50% (~1.7%)	> 40% (1.3%)	< 4% (0.1%)			< 3% (0.1%)
Senegal (1990)	< 46% (~1.7%)	> 25%	< 3% (<1%)	~10% (0.4%)		17% (0.6%)
Sri Lanka (1990)	42% (1.5%)	52% (1.7%)	negligible		1% (0.03)	~7% (0.2%)
Zimbabwe (1994)	39% (3.4%)	31% (2.7%)	negligible		17% (1.5%)	13% (1.2%)

1987 and 2.2% in 1995, without an explicit change in policy. Similarly, in Sri Lanka general revenue spending increased from 1% of GDP in 1945 to 2.3% of GDP in 1959, once a decision was made to rely on public spending to expand health services. This increase was faster than that in out-of-pocket spending during this time.

Are there policies to use specific methods of resource mobilization? and if so, have they been effective?

In all countries, general revenue spending and out-of-pocket financing occur as major financing methods. When governments think about the need for additional resource mobilization, they rarely think about the potential for expanding these. Other methods have been tried at certain times in each country, and usually this has been explicitly done. For example, Zimbabwe has had an explicit policy to increase revenues from user fees. However, this has not been effective in terms of resource contribution, because of weak implementation, high exemption ratios and failure to adjust for inflation. In Bolivia, social insurance was introduced in 1905 as part of the social security system, and was later extended to cover all formal sector workers in 1954. This has proved to be an effective mechanism for financing health services for the formal sector workforce, but has had little benefit for the majority who are outside formal sector employment. (other than the extent to which it has freed up resources for those who use government services). Sri Lanka has explicitly attempted to provide health services to all through general revenues since 1951. This was relatively successful in that it was able to provide a minimum level of basic services to the whole population since that time. After the 1970s, Sri Lankan policy-makers implicitly encouraged an expansion in private out-of-pocket spending,

Table 4

Trends in Health Spending

Country	*Time period*	*Total*	*Public*	*Private*	*Comments*
Bolivia	1980-86	?	Declined from 2.3% to 0.2% of GDP.	?	Period of hyperinflationary macroeconomic collapse
	1987-96	Increasing to 4.9% of GDP	Increased from 1.5% to 2.2% of GDP	?	Followed economic stabilization and "shock therapy"
Sri Lanka	1950-82	Stable at ~3.3% of GDP	Gradual decline from 2.3% to 1.1% of GDP in 1982	Rise from 1.1% to 1.4% of GDP	Stagnant income with low income growth. Private spending on Western treatment increasing six fold in real per capita terms.
	1983-96	Initially stable at 3.3% of GDP, and now rising to ~4.0%	Increase from 1.1% to 1.8%	Significant rise in out-of-pocket spending as % of GDP from 1.4% to >2%?	Rapid income growth following economic liberalization (>4% p.a.)
Zimbabwe	1979-90	Probably increased	Increased 94% in real terms, and 48% in real per capita terms up to 1988.?	?	Relatively good economic growth.
	1991-96	Falling	Fell from 3.1% of GDP to 2.1%.	?	Macroeconomic crisis with falling GDP per capita.
Senegal	1975-1990	?	Public spending declined sharply from mid-1970s to 1980s	Rapid increase in private insurance expenditures during 1990s	
Cote d' Ivoire	1980-95	Declined in real per capita terms	Roughly stable share of GDP	?	Steady, but small, decline in GDP, with significant reduction in real per capita GDP

without officially compromising the policy of free care. This new policy did work to the extent that private spending has increased from about 1.1% of GDP to about 2.5% in recent years.

What has been the impact of the different methods of resources mobilization in terms of efficiency, equity, quality of care and sustainability?

Tax revenues, user fees, social insurance, private insurance and donor funding have been the main methods of resource mobilization for the health sector. We discuss the impact of these methods separately in terms of efficiency, equity, quality of care and sustainability.

Tax Revenues

Revenue from taxes has been the traditional means of financing the health sector in many countries, and Bolivia, Cote d'Ivoire, Senegal, Sri Lanka and Zimbabwe are

Table 5

Insurance: Assessment

Country	*Type of Insurance*	*% Population Covered*	*% Of Total Health Expenditures*	*Trend*	*Assessment*
Bolivia	Social	22%	33%	Marginal increase in beneficiaries (<10%) since 1980	Covers only the formal sector. Compulsory by law. Employers pay 10% of wage, employees 0%.
	Private	0.3%	1.5%	No trend	
Sri Lanka	Private	1.0%	<1%	80% real increase in reimbursed claims and 40% increase in beneficiaries during 1990-94	Restricted to urban formal sector workforce. Evidence of significant price inflation.
Zimbabwe	Private	7%	17%	Beneficiaries increasing rapidly; doubled between 1980 and 1990, and tripled between 1980 and 1995	Scope for increasing coverage. Only 1/3 of formal workforce covered so far; plantation workers not covered yet.
Senegal	Community	<0.2%	<0.2%	Falling enrollment	Experiencing financial collapse owing to inability to collect premiums.
	Private	1	<1%	Rapidly increasing enrollment	Scope for increasing coverage
	Social	3	~10%	Coverage doubled during the 1980s	Covers only formal sector workers and pensioner, mandated by law. Employers pay 3% of the wage; employees pay 3%.

no exception. Excluding out-of-pocket spending by households on private purchase of health care, allocations from tax revenues are the most significant means of financing health services in these countries, and contribute to one-third to one-half of total spending in the health sector in these countries (table 6).

Revenue Mobilization

In most countries taxes are collected by the central government, state governments and by the municipal bodies. In all countries of this study, the contribution of central government has been predominant, with provincial and municipal taxes contributions being generally very low. However, municipal governments are increasingly being called upon to play a larger role in the management of these funds and allocations. This idea is still being discussed in Zimbabwe as part of the decentralization objectives of the government in the health sector. Bolivia is at a

Table 6

Tax Allocations For The Health Sector: Some Indicators

Country	***Revenue Mobilization***	***Efficiency***	***Equity***	***Quality***
Bolivia	Significant (33%)	Unit Costs: high; Cost-effectivenes: poor	Inpatient: favors medium-high income groups; Outpatient: favors medium-high income groups	Generally fair
Côte d'Ivoire	Significant (<50%)	No information	Hospital care predominantly benefits urban and wealthier households; clinics use more equally distributed	No information
Senegal	Significant (<46%)	High unit costs; low personnel productivity	Hospital care favors urban and wealthier households	No information
Sri Lanka	Significant (47%)	Unit Costs: very low; very high personnel productivity. Cost-effectiveness: poor	Inpatient: benefits equally distributed; Outpatient: favors low-income groups	Generally high
Zimbabwe	Significant (30%)	Unit Costs: high; Cost-effectiveness: poor	Inpatient: benefits equally distributed; Outpatient: benefits equally distributed	Generally poor

stage of implementation, where with the enactment of the Popular Participation Law in Bolivia April 1994, municipal governments have become responsible for investments and the administration of health sector infrastructure. Central tax collections are thus transferred to the municipal bodies who take the relevant decisions regarding setting up new facilities and expanding the existing ones, though the central government continues to be responsible for the staff employed in the health facilities. Directly or indirectly, therefore, central tax revenues support a vast network of public sector health institutions in Bolivia.

Total tax collections in Bolivia have shown a steady increase over time, from Bs. 1166 million in 1989 to Bs. 2,435 million (approximately US$530 million) in 1994 (all figures in 1990 Bs.). Internal revenue has contributed to most of this growth, more than doubling over the five year period, while tariff revenue has registered only a modest 10% growth. At the same time, public spending on health has increased from Bs. 226.10 million in 1989 to about Bs. 477 million (US$99 million), which represents an average of Bs. 68 (approx. US$14) per person on

recurrent costs related to health care. A bulk of this expenditure (around 85%) is on staff salaries (both medical and administrative), with the remaining going to other recurrent costs.

With the implementation of the Popular Participation Law, most public sector health institutions have been transferred to Municipal Governments. According to the National System of Health Information, the number of registered institutions in the public health sector grew from 1,304 in 1990 to 1,788 in 1994, with a total of 7,203 beds, so that in 1994 there was one public sector health care provider for every 2,758 persons, or one bed for every 685 persons. Tax funds employ 2,011 doctors, i.e., 2.9 doctors for every 10,000 people.

Almost one-third of health sector funding in Zimbabwe comes from central government revenue, and supports a vast network of primary, secondary and tertiary hospitals. The contribution of tax revenue for funding the health sector is, however, expected to fall, although it may still remain the largest single source of funds. The experience of the economic structuring and adjustment program has shown a decline in real terms of allocations to the health sector and other social services while a larger share of national resources has been devoted “productive sectors” such as agriculture, commerce and industry. In addition to general cuts to the health budget, more stringent rules for keeping within budgets have been introduced during the last tax year which have precipitated a crisis in the public health sector.

In line with ESAP Government is reducing personal tax to increase disposable income in order to increase consumer buying power. Company tax is being reduced to stimulate investment and to prevent collapse of industries in order to save jobs. Import duty and tax are being reduced in order to open up the economy to competition. At the same time, increases in excise duty on alcohol and tobacco are unlikely, as they tend to be unpopular politically.

Thus, significant increases in the central government tax income are unlikely. As a result, central government has been reducing its grants to cities and municipalities for health care for a number of years. Cities have had to compensate by using more of their rates income for health care. Sales for utilities (water, sewage, refuse collection) probably do not cover costs. The rate of increase in city rates is probably as rapid as the city electorates will allow. Rates from the low density, high value properties are used largely to pay for social services in high density areas. Despite these constraints the cities still manage to run health services that are perceived to be more sophisticated than those run by central government. Cities use user fees to supplement tax income, sometimes in (near) defiance of central Government’s pronouncements on national fee exemptions.

Public taxation is the major method of resource mobilization in Sri Lanka’s health sector, and contributes almost half of total funding in this sector. Public health care spending has been sustained above the level of Rs. 150 per capita, and has been maintained at this level despite little change in the share of national income being

collected through general revenues. This was probably related to a change in the state's view of its role in health financing, and was influenced by universal suffrage in 1931 and the malaria epidemic in 1934 which pointed to the inadequacies of the existing system. Economic growth in Sri Lanka was rapid in 1980s, and though public tax revenues did not increase significantly, recurrent public health expenditures did and have been sustained since.

Efficiency

Public tax money has generally been allocated to hospitals, and thus public funds are as efficient as the receiving facility. Government hospitals are not known to perform very efficiently, whether one uses the traditional measures of efficiency like the bed occupancy ratios and the average length of stay, or whether one looks at other operational indicators, like state of preparedness for the hospital to meet emergencies, the repair and maintenance of equipment, etc. (also see Govindaraj and Chawla, 1996).

In the absence of user fees, publicly funded health provision has limited potential to benefit from the interplay of market forces and improve on allocative efficiency. Public funds tend to be allocated historically and in response to perceived needs. Thus, even though allocations to hospitals are generally argued to be less cost effective than non-hospital based care (see, for instance, Kutzin, 1995; for a counter-argument, see Rannan-Eliya, 1996), a large proportion of public funds are allocated to hospital based care. Similarly, there is little incentive for publicly funded hospitals to be cost conscious, and this is reflected in the high unit costs of hospital services in Bolivia and Zimbabwe. Public spending is economically efficient only in Sri Lanka, where unit costs of tax-funded health services are very low because of high levels of utilization and intensive use of available staff and beds.

Equity and Quality

Most government revenues are derived from direct taxes on individuals, indirect taxes (sales tax on consumption, finance tax on trade), and transfers from state enterprises. Direct taxes generally contribute a very small percentage of total collection, and state owned enterprises in most developing countries are more of a drain on the public treasury rather than contributors to it. Most tax revenues are generally raised through indirect taxes.

Indirect taxes are mainly of two types: consumption taxes, production and trade taxes. In most developing countries, consumption of most foods, clothing and shelter is not taxed. And since production and trade taxes are paid by producers and traders only, the poor and low income households generally pay very little tax of any sort. To the extent that the consumption taxes follow this pattern, therefore, the poor stand to benefit from any free service that the government provide, so long as they (the poor) have access to it. Of course, different countries have different experiences in this regard.

The access problem can be overcome and universal public provision schemes can potentially redistribute income and wealth from the rich to the poor, if certain enabling conditions are fulfilled. As Besley and Coate (1991) point out, this redistribution would occur as long as (a) both public and private sectors provide the social good; (b) differential pricing occurs because of differential quality, with the lower quality goods being priced lower; (c) there is no excess demand in the public sector which, presumably, provides the lower quality version of the good; (d) consumers are rational, they value quality and are prepared to meet the marginal benefit of quality with marginal cost in the form of out of pocket spending. For these arguments to make sense in the case of a social good like health, a fifth condition should be that the quality of the good in the lower quality production and delivery is at least as high as some objectively set standards would prescribe.

Many of these conditions are not met in Bolivia and Zimbabwe. Most importantly, there is either excess demand for the lower quality government production of health services or the quality differential between government and private provision is not large enough for consumers to be willing to pay for. Thus, in Bolivia only 10% of those who sought treatment from publicly funded facilities belonged to the lowest per-capita spending quintile, over 50% belonged to the third and fourth quintiles, over 75% of those belonged to the richest 60%, and more than 25% of all users of these facilities belonged to the highest income quintile. Though we do not have detailed information in the case of Zimbabwe, a parallel study (Needleman and Chawla, 1996) shows that a large number of rural poor have little access to tax funded facilities. In both of these countries, therefore, public provision tends to favor the rich at the expense of the poor, and does not redistribute income or wealth.

In the case of Sri Lanka, however, public provision of health services are successful in reaching the poor, and in doing so, achieve a net redistribution of resources. Tax funded health services in Sri Lanka are generally of high technical quality, and command a high consumer satisfaction. At the same time, perceived quality is higher in the private sector, where waiting times are low, over crowding is not an issue and general cleanliness and appearance is better than government facilities. Thus, while consumption of inpatient services has been relatively equally distributed among the rich and the poor, the distribution of outpatient services has tended to favor the poor more.

User Charges

Consumers of health care are accustomed to user fees in most countries around the world where the private sector participates in health care provision. However, the prevalence of user charges in public facilities is not so widespread. Moreover, in countries that do have a user fee system the system of exemptions and waivers is such that actual fee collected is very low. It is thus no surprise that user charges

have made negligible contribution to resources for the health sector in all of the five countries studied (table 7).

The only country in our sample that has an official policy regarding user charges, and has in place a fee structure for all public hospitals, is Zimbabwe. Yet, for several reasons, the contribution of fees to total recurrent costs of production and delivery of health services is negligible. First, fees are set at very low levels compared to the operating costs, for both outpatient services as well as inpatient treatment. User fees thus, cannot make a significant contribution to recurrent costs even if the billing and collection procedures were to be efficient. Second, the recurrent costs of operation are high at the point of delivery of services, so that even if the absolute amount of user fees collected were to be high, its contribution to total recurrent costs would be low. For example, in the absence of a functioning referral system, a number of primary health care services are provided by the Parirenyatwa and the four central hospitals at costs much higher than similar services provided by primary health care clinics. Third, billing and collection systems are very weak, even in cases where there is little doubt regarding ability to pay. For instance, a large number of patients with private insurance from medical aid societies have not been billed by the Parirenyatwa hospital even one year after

Table 7

Public Sector User Fees and The Health Sector: Some Indicators

Country	*System of User Fees*	*Exemptions*	*Contribution to Revenue Mobilization*	*Impact on efficiency, equity and quality*
Bolivia	Free care		Negligible	Negligible
Côte d'Ivoire		Formal system not developed	~7% of MOH recurrent expenditure	Improved drug availability at health centers reported
Senegal			~4% of MOH recurrent expenditure	No evidence
Sri Lanka	In one hospital only	Some exemptions	Negligible	Negligible
Zimbabwe	Formal structure of fees for all public sector services	Exemption for all earning <Z$400	Negligible	Negligible

they have been discharged. Fourth, exemption and waiver policies are such that most people are exempted anyway.

In Sri Lanka, user fees made their greatest contribution before 1951, when government health facilities routinely charged user fees. At its best, user fees contributed around 20% of total recurrent expenditures in health, and this figure gradually declined over time to less than 3%. The principle of free care was established in 1951, and user fees were no longer regarded as an option for raising funding for the health sector. A token fee of 25 cents for all out patient visits was introduced in 1971. While this contributed less than 2% of recurrent expenditure, it had the effect of reducing utilization of outpatient services by as much as 30%. This fee was abolished in 1977.

At present user fees are charged in one facility only in Sri Lanka. Established in 1984, the SJG Hospital has been charging fees from all outpatient and inpatient non-poor patients. The fees collected contribute to over 20% of all recurrent operating costs of the hospital. This has not affected equity in any significant way, since the hospital provides services in addition to the free medical services provided by the main government hospitals in Colombo.

Thus, none of the potential benefits usually associated with user fees have been realized in any of the countries studied. It is well known, for instance, that user fees have the potential to bring about improvements in allocative efficiency in that user fees provide good price-signals to inform clients about priorities in the health system, and make them aware of costs when they use the health system. At the same time user fees are known to provide suppliers of health care with good signals of what services are being demanded, and how much is being demanded. The impact of user fees on resource mobilization, efficiency, equity and quality of services has thus been very limited in all the countries studied.

Health Insurance

With increases in taxation levels, difficult political and practical circumstances in most developing countries, and with user charges making a very limited contribution to resource mobilization, health insurance is being increasingly put forward as a reasonable and useful means of generating resources for health care. Carefully monitored and regulated implementation of health insurance, it is argued, can not only raise resources for the health sector, it can potentially improve the supply and provision of health services. Moreover, there seem to be reasons to believe that people will more willingly pay for health insurance than they will in the form of increased general taxes or specific earmarked taxes.

However, experience from the five country studies does not seem to support this optimism. Available evidence in low income countries like Senegal, Cote d'Ivoire, Zimbabwe and Sri Lanka (Bolivia is the only exception) indicates that only a small percentage of the population has any kind of health insurance.

Health insurance, like all insurance, is a way of risk sharing that allows conversion of a low-probability high-cost outcome to certain but low-cost events. People fall ill quite randomly, and in most cases the probability of falling ill is quite low. Treatment of illness is usually costly, and either patients or providers of health care have to bear this high cost. A group of people can get together and regularly contribute to a common pool, quite like having a recurrent saving account in a bank. These funds can then used to pay for the health care costs of the members of the pool when they fall ill and seek treatment. By making small but regular contributions, one can insure against high expenses, especially when illness might make it even more difficult to raise the required funds.

Insurance may be organized in many ways, and while some of the distinctions are merely operational, others are critical and useful in understanding the prevalence and potential of health insurance. These distinctions revolve around ownership of the third party pool, eligibility, services covered, whether participating in the insurance is mandated by law, and the manner in which the premium are set. Besides being a more detailed way of describing insurance, these distinctions highlight the problem of categorizing insurance as being “private” or “public”.

It is conventional to classify insurance as being public or private depending on who owns the third party pool. Private ownership, it is argued, will be necessarily linked to profit maximizing objectives, while public ownership will seek welfare maximizing as the desirable objective. Profit maximizing requires that premium contributions reflect the risk potential of the insured, and thus premiums in profit maximizing insurance can generally expected to be actuarially set. Welfare maximizing would require that the insured contribute in accordance to their ability to pay, subject to the condition that the pool of funds does not dry up. Thus, in social insurance while the pool of third party funds can generally expected to be actuarially determined, individual contributions are more likely to be ability based.

However, government regulation and intervention has had a serious impact on the market’s ability to optimize these two objectives in the conventional manner defined above. At the same time, trade unions have successfully redefined the demand for insurance in many countries. As a result, private and social insurance are no longer useful definitions of insurance, as brought out in the table 8 below.

In Zimbabwe, and in smaller insurances in Sri Lanka and Bolivia, the third party is a private insurance fund pool. Elsewhere, in Bolivia and Senegal, the funds vest with a quasi-government body or a community collective. As far as membership eligibility is concerned, with the exception of Zimbabwe medical societies, membership is open to all individuals wherever the ownership is private. Elsewhere eligibility is restricted to formal sector employees or specific firm-based formal sector employees. Some programs are more specific, like the national mother-child insurance in Bolivia, where eligibility is automatic for expectant mothers. In most cases services covered are by and large all outpatient and inpatient, though there are some restrictions placed by some insurances.

As far as premium setting is concerned, with the exception of medical aid societies in Zimbabwe, we find no evidence anywhere of any risk-adjusted premium calculation. In most cases the premium are probably set first, and then depending on the membership and contribution, the menu of services decided.

In Bolivia, government sponsored health insurance is operated through national security funds, which consist of funds contributed by certain social classes for a specified set of health and welfare benefits. Based on the principle of social solidarity, the concept of social security insurance defines medical care as a social rather than a private risk. This form of social insurance leads to a cross-subsidization from the better off to the low income earners, while a large pool

Table 8

Characteristics of Insurance in Selected Countries

Insurance	*Ownership*	*Eligibility*	*Services*	*Mandates*	*Premium Setting*
Medical Aid Societies, Zimbabwe	Non-government not-for-profit	Formal sector employees; one MAS also covers small groups of self-employed	Most outpatient and inpatient services, including drugs	No government mandate; industry and trade unions	Third party pool actuarially determined initially; subsequent revisions historical; individual premiums risk pooled.
SLIC, NIC, UAL, etc. Sri Lanka	Private corporate	Open	Most outpatient and inpatient services, including drugs	No government mandate	Arbitrary; no risk adjustment
Employer- based schemes, Sri Lanka	Company	Company employees	Most outpatient and inpatient services, including drugs	No government mandate	Full reinbursement, subject to a maximum
Cajas de Salud, Bolivia	Quasi-government	All formal sector employees	Most outpatient and inpatient services, including drugs	Compulsory participation for formal sector employees	Rates fixed at 10% of gross salaries
ABOSMEP, Bolivia	Private, prepaid plans offered by providers	Open	Fixed as per package purchased	No mandate	Rate fixed a little lower than market price for the specific package
National Mother-Childhood Insurance Program, Bolivia	Quasi-government	Expectant mothers and infant children	Maternal, obstetrics and pediatrics services	Automatic coverage	special earmarked funds for full coverage of prescribed services
Mutuelles, Senegal	Community	Members of the community	Most outpatient and inpatient services	No mandate	Arbitrary; no risk adjustment

guarantees transfer from those with a lower incidence of illness to those with a higher incidence of illness. Borne out of public policy in Bolivia, government legislation decided eligibility, premium and benefits, and then mandated it for all formal sector employees.

Another form of insurance coverage is employer-sponsored, as in the case of some of the medical aid societies in Zimbabwe, the ABOSMEP in Bolivia and company insurance in Sri Lanka. Under this system the employer provides health care to the employees and their families through either employer owned or employer contracted providers. Premiums contributions are taken from the payroll, and usually all services are provided.

Finally, in countries like Senegal there is some evidence of community, or cooperative, financing. Community sponsored plans and cooperative based programs are characterized by a group of individuals, like in a cooperative, who identify projects which have strong public goods characteristics, and establish a mode of mobilizing resources toward meeting the objectives of the program. Established by the common will of the people rather than the market forces, these programs permit a variety of resource mobilization methods, such as payment in cash or kind, payment in part or full, payment in the form of labor contribution, idle land, etc. Senegal and Cote d'Ivoire are examples of this type of insurance.

Revenue Mobilization

Insurance mechanisms have a great potential to contribute to revenue collection. First, insurance usually involves the mandatory contribution of new funds (especially employer's contribution) as well as some mandatory contribution of some funds that are probably just moved from private to public (especially worker's contributions). Second, since insurance contributions are an "earmarked" contribution, kept separate and tied to specific benefits, compliance is generally higher even where general tax compliance is not very good. Third, most people find it easier to make small contributions at periodic intervals rather than large contributions at the time of illness. And finally, members of an insurance pool may be able to choose to pay when they are more able to, like harvest time, than when they are less able to, like illness time.

However, insurance has not contributed significantly to resource mobilization in most of the countries studied. With the exception of Bolivia where almost one-third of health care is insurance funded, and in Zimbabwe where the medical aid societies contribute to about 17% of total health expenditures in the country, insurance contributions elsewhere have not been significant.

It is also useful to note that wherever insurance is prevalent, sustainability of the insurance mechanisms is not in doubt. The medical aid societies in Zimbabwe have demonstrated their ability to contain administrative costs, maintain quality of service, and periodically adjust premiums to stay ahead of inflation and changing health demand patterns. Bolivia is a relatively new entrant, but here also the institutional build up and decentralization provide the necessary support for sustainability.

Efficiency

The only two countries where insurance has made any significant impact are Zimbabwe and Bolivia. Private medical insurance is provided in Zimbabwe by Medical Aid Societies (MAS), that have formed a monopsonistic cartel known as the National Association of Medical Aid Societies (NAMAS). MAS are non profit

organizations with generally low administrative costs. Their origin is in the health insurance plans developed by large firms and groups of firms in particular industries. Zimbabwe has a large formal sector relative to many African countries, and this may account for the relatively rapid growth of medical aid societies. They still mainly cover the formally employed since they collect premiums through employers.

MAS have been very cost-efficient, though probably more for fortuitous reasons than for any good planning or execution. The MAS negotiate charges each year with practitioners and hospitals, and use their large buying power to keep charges low. Ignorance about available services by some clients keeps use, and thereby spending, low. The rural isolation of some clients from costly care saves money particularly for the Public Services Medical Aid Society, whose clients are civil servants, the majority of whom work as teachers and as other professionals in rural areas. The late- or non-billing by government hospitals for services to MAS clients reduces MAS expenditure, but the exact amount remains to be quantified.

One problem most insurance face is that of overuse of insured services, and to some extent, oversupply of insured services. The MAS in Zimbabwe have been able to control this by instituting a system of periodic checks on bills and outgoing payments. Adverse selection problems have been resolved by making insurance compulsory for all employees in an organization, and by insuring only groups of self-employed people.

Insurance in Bolivia is also generally cost efficient, and is based more on the managed organization principle in that the health funds own and manage over 200 health centers. Moral hazard has not so far been a threat, and risk pooling has been ensured by having a very broad base of coverage. The facilities of the public health funds cover approximately 21% of the urban population, but only 4% of the rural population. For the country as a whole, public health funds cover approximately 14% of the entire population.

As in the case of Zimbabwe, there are some perverse reasons for the low costs of these operations. Although much of the urban formal sector labor force participates in the public health fund system (the total number of beneficiaries is equal to 40% of the urban population), many upper-middle and high income households do not utilize its services. There are many significant non-market rationing mechanisms (coupons for visits and long queues) that limit access, and many potential beneficiaries use the services of private sector providers, either private medical offices or prepaid medicine programs. It is commonly observed that high income health fund members use private sector providers for routine consultations (e.g. pediatric and gynecological visits), but rely on the health fund system for more expensive treatments. Private sector providers are also often preferred for specialized care (e.g., ophthalmologic care, surgery) if they are perceived to be of better quality and reliability. Thus, a significant proportion of the insured, though they (or their employers) contribute to the funds, do not actually use the services offered.

Equity

Insurance, whether it be social insurance or private insurance, has a direct equity-enhancing impact. Within the risk pool, i.e., the group of persons who have insurance, the system of insurance takes care of equity in terms of delivery of health care. Benefits are provided on the basis of need rather than on the basis of income. Therefore, insurance systems have the potential to ensure both vertical equity (persons in unequal need be treated in an appropriately dissimilar way) and horizontal equity (persons in equal need be treated equally).

Insurance in Zimbabwe and Bolivia is available only to formal sector employees, and to the extent that formal sector employees form only a small percentage of all employees, any government tax funds contribution to insurance funds will by definition be inequitable. Thus, the MAS of Zimbabwe lead to inequity in provision of care insofar as the government offers a tax relief for 20% of employee MAS premiums. Premiums tend to rise with the cost of services, and for high cost schemes this government subsidy to the rich can exceed the national per-capita expenditure on health. MAS tend to encourage, and in some cases provide, high-tech medical care (e.g. CIMAS Laboratory and Radiology services which recently installed a CT Scanner and a MRI).

Moreover, the increase in private medical practice due to the increase in insured patients has encouraged government and university doctors to see patients privately and practitioners have moved from the public to the private sector in Zimbabwe.

In Bolivia, in terms of utilization of public health funds facilities by income quintiles, 56% of all public health fund facility users belonged to the wealthiest 40% of the population, while only 23% belonged to the poorest 40%. A disproportionately large 35% of all users belonged to the fourth quintile.

Out of Pocket Funding

One of the most significant sources of health sector funding, and on which we the least information, is household out-of-pocket spending, which contributes between one-quarter to one-half of health sector funding in most countries.

The principal recipients of direct spending by households on health care are private medical practitioners and pharmacies, and to a smaller extent, private hospitals. Direct spending by households has contributed 23% of total health spending in Bolivia, 52% in Sri Lanka and 31% in Zimbabwe. In terms of the respective countries GDP, direct spending was responsible for mobilizing 1.4% of GDP in Bolivia, 1.7 % in Sri Lanka and 2.67% in Zimbabwe.

While we do not have any disaggregated data on household spending, it is reasonable to assume that since the level of private sector hospital provision is

generally low in developing countries, most household spending must have gone to purchasing ambulatory care or drugs. To the extent that spending on ambulatory care is more allocatively efficient that hospital care in terms of promoting good health, out-of-pocket is the most allocatively efficient way of spending for health care.

3. Conclusions

Governments and policy-makers, when designing resource mobilization strategies, often fail to develop strategies that adequately take into account all the financing mechnisms that exist in the health sector, and they tend to ignore the private sector options.

A basic premise of this study was that countries have consciously chosen their particular resource mobilization strategies, and that these decisions and policies could then be evaluated. However, although governments often develop strategies to develop individual resource mobilization methods, such as user fees or the level of general revenue financing, they rarely think about the overall mix of mix of methods, both public and private, and how they interact to finance the health sector as a whole. A common and major weakness has been a tendency on the part of most governments to ignore the role of household spending at private providers in financing health services.

For example, in Zimbabwe, public sector user fees have been evaluated as a resource mobilization option, but with little thought to as to how increased user fees might lead to increased use of private providers by consumers and thus reduced utilization of public sector services by the wealthy, who are the ones eligible for user fee charges. In Sri Lanka, the one resource mobilization method which has shown significant increases in the amounts raised for health services is direct household spending. While this mechanism has increased its contribution from 1.1% of GDP in 1953 to 1.7% in 1987, this occurred largely by default and despite official government policies that health care should be largely provided free through general revenues. However, interviews with senior policy-makers revealed that at least in the 1980s onwards, senior policy-makers may have followed a conscious policy of relying on increasing household financing of the private sector as a solution to the problem of insufficient government tax resources. It is unclear whether policy-makers in the other four countries have consciously pursued similar strategies.

The explanation for this somewhat myopic approach by policy-makers consists of a mixture of a traditional reluctance to consider private sector financing when making health policy, and partly from a lack of information systems which would provide data on the private sector (e.g., National Health Accounts).

Mobilization of greater resources is not the only solution to achieving better provision of health services.

Many African policy-makers face real constraints to expanding tax-funded public spending on health services, and other factors constrain significantly increased mobilization from other methods. It has been argued that African countries need to mobilize a minimum of US$13 per capita in order to provide a minimum package of basic services (World Bank, 1994). However, mobilization of greater resources is not the only solution to the problem of providing more and better health services. While per capita incomes in the five case studies were very similar (US$500-770 in 1994), the five countries mobilized very different levels of resources for health, and achieved quite different outcomes in terms of health and fertility reduction. The amount of resources mobilized appears to be unrelated to the level of outcomes.

So Sri Lanka mobilized the least resources (US$ 18 per capita in 1990), but achieved the best outcomes (and incidentally also the fastest rate of improvement in its health indicators during 1960-90 of the five case studies), while Bolivia was the second highest spender (US$ 30 per capita) and achieved the second worst outcomes. Sri Lanka's resource mobilization experience is particularly interesting for two other reasons. First, it completed its health transition in just fifty years, while mobilizing total national health resources of less than US$ 8 per capita per annum throughout (considerably less than the cost of the World Bank's minimum "cost-effective" package for Africa), and maintaining general revenue spending at less than US$ 5 per capita. Second, the Sri Lanka study found that when Sri Lankan policy makers faced hard budget constraints in the 1950's to 1970s, they doubled the volume of services provided through general revenue financing without spending more money by simply doubling efficiency in service delivery. While most policy-makers agree that there is scope for improving efficiency in resource use, more attention has been paid to increasing resource mobilization than to increasing efficiency in service production (e.g., Shaw and Ainsworth, 1995). The experience from these case studies suggests that financially-strapped African countries may have more to gain from increasing production efficiency than attempting to increase resource mobilization.

For most low-income countries, only two resource mobilization mechanisms ever make significant contributions: general revenues and out-of-pocket spending at private providers. The crucial objective for policy makers is how to ensure the combined effect of these two maximizes health impact, general welfare, efficiency and equity.

A key lesson from these case studies has been that only two resource mobilization mechanisms make significant contributions to health sector financing. Together as a proportion of total health sector funding, these two account for more than 60% in Bolivia, 98% in Sri Lanka, 90% in Zimbabwe, and more than 90% in Cote d'Ivoire and Senegal. However, these two mechanisms do not share the same characteristics or impacts.

In all the countries studied, general revenue financing account for 30-65% of total health sector funding. In Senegal, Cote d'Ivoire, Bolivia and Zimbabwe it was the largest, while in Sri Lanka it had been the largest until the 1990's. Interest in the alternate mechanisms of financing, such as public sector user fees and insurance, should not divert attention from the fact that public taxation will still remain a much more important and essential financing method.

All the countries studied are facing or have faced macroeconomic crises leading to severe fiscal constraints, and in each case this has been associated with a real decline in general revenue financing. However, when structural adjustment policies or better macroeconomic management have led to improved economic performance, general revenues have risen and real per capita public spending on health has increased. Bolivia represents a most spectacular example of this. Fiscal irresponsibility in the early 1980s led to hyperinflationary economic collapse, and reduced general revenue spending on health from 2.3% in 1980 to 0.4% of a declining GDP in 1986. It was only when 'shock therapy' had stabilized the economy after 1985, that public health spending began to increase in real terms. By 1995 it had reached 2.2% of an increasing GDP. Similarly, in Sri Lanka autarkic economic policies led to economic stagnation during the 1960s and 1970s, and gradual real decline in public health spending, which was only reversed when economic liberalization led to faster economic growth from the 1980s onwards. The important lesson that should be drawn is not that reducing general revenue allocations to health is a solution to problems of fiscal imbalance, but that fiscal responsibility and better economic management are the key to achieving greater general revenue mobilization for health .

The other significant source of financing for the health sector is out of pocket spending, accounting for one-fourth to one-half of all expenditure on health from all sources. In Zimbabwe, individual direct payments on private medical care, pharmaceutical and user fees contributed Z$1119 in 1994, representing a little over 30% of total expenditure on health care, and was the single largest source of health expenditure. In Bolivia, preliminary estimates indicate that Bs. 1564 million (4.95% of its GDP) was spent on financing health care, of which out-of-pocket expenditure contributed 26% to total expenditure (Bs. 375, 1.5% of GDP), while social insurance and government taxes accounted for about 36% each. Similarly, direct spending by households for medical treatment has consistently mobilized 1.1 to 2.1 % of GDP for direct spending on health care. In 1990 households contributed Rs. 5600 m to health care out of a total expenditure of Rs. 10,777 m,

accounting for about 52% of all expenditure. Government spending was Rs. 5064 m (47%), while private and employer based insurance contributed negligible amounts.

It is reasonable to assume that the principal recipients of direct spending by households on health care are private medical practitioners and pharmacies, and to a smaller extent, private hospitals. Yet, we have little information on who these private medical practitioners are, what kinds of services they provide, what is the quality of care in the private sector, and where their demand comes from. The important lesson of this section is that out-of-pocket expenditure is a resource mechanism whose potential contribution and socio-political feasibility is often underestimated by African policy makers.

In all the case studies, out-of-pocket spending is income elastic and rises with household income. By itself, this mechanism will contribute more to financing health services for the better-off than for the poor. However, in all the case studies, general revenue financing is the major source of financing for health services reaching the poor, and for inpatient care for all groups, but the distribution of public health spending is not equitable in all the countries. In several countries for which there are data, public health spending disproportionately benefits the rich. However, this is not inevitable, and in Sri Lanka public health spending disproportionately benefits the poor. If policy-makers are concerned about equity and health impact, they have to work out how general revenue funded health services can reach the poor, while ensuring that wealthier households pay for much of their own care from private providers.

The potential contribution of user fees is limited.

There are two potential objectives of health service user fees: (a) raising of revenue to fund or part-fund the services, (b) generation of a set of financial incentives to encourage more efficient production and use of services. In particular, they can be used to support the referral system, and avoid self-referral of simple cases to high level facilities. In general, experience of the five countries indicates that public sector user fees make insignificant contributions toward funding of the health sector. When user fees have been tried in Sri Lanka, they have contributed less than 5% of total health sector financing. In Zimbabwe, user fees currently contribute less than 3% of total health sector financing.

There seem to be two sets of reasons for the poor contribution of user fees to health sector funding. One relates to the weaknesses in implementation, and the other relates to fundamental constraints in the application of user fees in low and low-middle income developing countries.

In most cases (SJG Hospital, Sri Lanka and PROSALUD, Bolivia are exceptions) user fees are returned to government central funds, which means that there is no direct benefit to hospitals and clinics that collect them. In Sri Lanka and Bolivia

where facilities are allowed to retain user fees and improve quality services, there is evidence to suggest that people are happy to make a contribution for a good quality service in preference to a free service which lacks basic resources.

In Zimbabwe, the Parirenyatwa Hospital is allowed to retain the fees collected, but lack of a hard budget constraint reduces the incentive to maximize revenues. As a result, the hospital has not billed even those patients who should and are able to pay through medical aid societies' private insurance for services consumed (see Needleman and Chawla, 1996).

The more fundamental constraint is that in order to get significant contribution from user fees, fees would have to be raised close to cost while at the same time, for social and practical reasons, the poor would have to be protected. The latter requires an efficient and effective means testing system to protect the poor. In practice, given the large percentage of the population in these countries who are either poor or outside the formal sector, this has been difficult to achieve.

For example, in Zimbabwe fees have already been increased significantly, and if further increases are introduced it will be necessary to allow exemptions to some fees for poorer parts of the population. Simple simulations carried out for a range of fee levels and exemption packages suggest that the current policy, if enforced strictly could generate around 20% of the income needed to support health care.

Social insurance contributes resources only for the formal sector.

With most developing countries finding it difficult to raise additional funds for the health sector from general tax revenues, and with user charges making a very limited contribution to resource mobilization, one means of generating new resources that is increasingly being discussed by policy makers is health insurance. Besides being a potential source of new resources, it is argued, health insurance will improve the supply and provision of health services by creating market-like conditions at points of demand and supply. Some of the known problems with insurance, like overuse and oversupply, can be controlled by careful monitoring and regulation. Cost containment can be ensured, it is maintained, by creating competition between providers and financiers. Issues of equity can be addressed by pooling all resources in a solidarity fund that cross subsidizes across need and ability, and contributions can be tailored such that on the margin no one is relatively worse off. Social insurance pool of resources tend to remain outside the embed of pressures on government budget, and have the added advantage of transparency in allocation. One would, therefore, expect social insurance to be widely prevalent.

However, experience from the five country studies does not seem to support this optimism. Available evidence in low income countries like Senegal, Cote d'Ivoire, Zimbabwe and Sri Lanka (Bolivia is the only exception) indicates that only a small percentage of the population has any kind of health insurance. It is useful to look at some of the reasons why insurance of any kind is not so widespread.

The main rationale for insurance is that it provides a safety net, and enables an individual to make small but regular contributions to a fund that pays all or part of expenses at times of need. However, the purchase of insurance is rational only if there is a positive probability of incurring an expense in the event of an illness. If healthcare is available free of charge, however, then it would make little sense for any individual to contribute to an insurance fund. Of course, preferential or better quality treatment for insured patients is an incentive, but it is difficult to introduce such differentials at most primary and many secondary and tertiary levels of treatment. User fees are thus a necessary condition for an insurance system to make universal sense, and in this way are inextricably linked with providing incentives to individuals to insure.

In all of the countries where this study was carried out, i.e., Bolivia, Cote d'Ivoire, Senegal, Sri Lanka and Zimbabwe, health services are provided by the government more or less free of charge, either because of a deliberate policy of not charging for medical services or because the exemptions levels are set so high that effectively no one has to pay. In these countries, therefore, there is little incentive for most people to voluntarily contribute to any insurance fund.

In the absence of user fees, the only other ways that contributions will be made to the insurance pool are if (a)contributions were to be made compulsory; (b) government pays on behalf of those who cannot; and/or (c) there exists private consumer demand for insurance. In some form or the other, the first two options have been exercised by governments in many countries. In Bolivia, for instance, a very significant source of financing for health care services is the system of public health funds, known as "Cajas de Salud". Started at the beginning of the century for education sector workers only, these health funds now cover all formal sector employees, and all employers are required by law to buy into some insurance pool. Over time the network has grown, and is at present composed of seven health funds and ten integrated insurance programs. These health funds receive most of their contributions from public and private employers. Again, in exercising the option of paying on behalf of those who cannot afford to pay for themselves, the government of Bolivia started the national mother-child insurance program. Under this scheme, all expectant mothers and infant children are automatically covered for basic care, and the government effectively pays the premium.

Zimbabwe is another country in our sample where some form of insurance is significant. Private medical insurance is provided in Zimbabwe by Medical Aid Societies (MAS). They are nonprofit organizations, who have their origin in the

health insurance plans developed by large firms and groups of firms in particular industries. The MAS still mainly cover the formally employed, and collect premiums through employers who often match the employees contribution or in some cases pay the full amount. Government has not made participation in this insurance compulsory, but a strong private market exists for insurance, both for historical reasons and because the unions have effectively been able to negotiate for health coverage. MAS have been successful probably because Zimbabwe has a large formal sector relative to many African countries.

The experience of Bolivia and Zimbabwe shows that while it is possible to mobilize resources for the health sector in the form of insurance, it is largely only the formal sector that benefits. (The Bolivian National Mother-Child Insurance Scheme is relatively new and has a very limited coverage). The poor and the needy remain outside the ambit of this mechanism of resource mobilization.

Further, most developing countries tend to have large cash-based segments, particularly in the rural areas. A system of social insurance, even if it is made compulsory, will face a real challenge in collecting contributions from most people in such economies. An additional problem is that governments usually have a limited ability to effectively implement a transfer system wherein resources can be diverted to the poor so that they may buy insurance. And if governments take up the direct responsibility of contributing on behalf of the poor, most of the benefits of insurance get neutralized as the distinction between free care and insurance blurs.

The scope of private insurance in the health sector in low-middle income countries is limited.

Our experience from the five country studies in Bolivia, Cote d'Ivoire, Senegal, Sri Lanka and Zimbabwe indicates that the scope of private insurance is very limited in these countries. The main reasons for this is that only the relatively rich demand private insurance, and in most of these countries, the rich, also being formal sector employees, are either covered by social insurance or purchase health care at the time of need.

Thus, it is no surprise that the use of private health insurance in Bolivia is very limited, and only a handful of companies offer private health insurance policies. Pre-paid medical care, often regarded in Bolivia as health insurance, is gradually becoming more prevalent in the country, though their coverage is still very low. Private insurance and prepaid plans contribute less than 2% of total funding in the health sector. The case of Sri Lanka is not considerably different. Private insurance is offered by a handful of insurance companies only, and raises only Rs. 33 m out of total expenditure of Rs. 10,777 m, which is much less than 1% of total health expenditures.

Probably the only country in our sample where private insurance has made some impact is Zimbabwe. Private medical insurance provided by medical aid societies (MAS). There are 25 MAS in Zimbabwe which belong to the National Association of Medical Aid Societies (NAMAS). They are not-for-profit companies, and have their origins in medical schemes for large companies and industries. Generally MAS work through employers, and in most cases employers pay some or all or the contributions. In general, it seems that MAS are well run and efficient, and around 8% of the population is currently covered by MAS schemes.

Hospital care tends to be predominantly funded from general revenues and social insurance, and ambulatory care is mostly funded from out-of-pocket spending, and this reflects the mixed goals of health financing in most countries.

In all the countries studied, inpatient hospital care is predominantly funded through general revenues or general revenues and social insurance. In contrast, ambulatory care is predominantly funded through out-of-pocket spending. Most outpatient and inpatient care benefit primarily the recipients, and so these services can be regarded as typically private goods. However, there is a critical difference between the two. Most inpatient care is expensive, and illnesses requiring inpatient care typically are associated with other financial burdens on households owing to disruptions to the ability to work. In all the case studies, there are no restrictions on private provision of inpatient services, but public financing remains the predominant resource mobilization mechanism for such care. In each case, private financing, either in the form of out-of-pocket spending or voluntary insurance, has failed to become a dominant source of financing for inpatient care.

In Bolivia, there are a number of innovative private financing schemes paying for health care in addition to conventional out-of-pocket spending seen in all countries. Yet while private spending accounts for 30% or more total health spending, it accounts for less than 15% of inpatient care. Even the prepaid medical schemes found in some urban areas of Bolivia only pay for outpatient or very basic inpatient care, such as child birth. The PROSALUD scheme which is an extremely successful example of the potential for private financing and cost recovery to support essential health services has only been successful because it has concentrated on providing outpatient services. PROSALUD has not attempted to provide inpatient services through its cost recovery approach. In Sri Lanka, throughout a fairly long period of 2,300 years hospital provision was established and then sustained only through general revenue financing. When in the 1930's, there was increased demand and need for greater hospital provision, private financing, through insurance, charity and out-of-pocket spending, proved incapable of filling the gap in provision, and policy makers were forced to rely on general revenue financing to expand hospital services.

The problem in all the case studies has been that even when there is household demand for inpatient services, most of the population lack the financial resources and savings to be able to pay for expensive inpatient care when they need it. In the absence of insurance schemes, such as the medical funds in Bolivia or the MAS in Zimbabwe, government must intervene to finance such provision. Governments must therefore not forget that regardless of how the basic essential services are provided, that government has an important and crucial role to play in financing basic inpatient hospital services. In doing so, African policy-makers may take note of the fact that public subsidies for hospital care in developed countries are not primarily for the purpose of improving health status, but for improving public welfare by preventing financial hardships for families caused by catastrophic illness. While this policy objective is quite explicit in OECD countries, it has been given less recognition in policy debates in Africa, where most of the concern is currently with maximizing health status. However, in at least two of the countries studied, Bolivia and Sri Lanka, the state intervened at various points to provide financing for expensive hospitalization, either through general revenues or through social insurance. Major illness causing financial hardships for families is as likely in African settings as in Bolivia or Sri Lanka, and so there is as much need for African policy-makers to consider these aspects as in La Paz and Colombo.

Nongovernment initiatives can play an important role in resource mobilization for the health sector.

In response to declining government allocations to the health sector, many individuals and groups of people in many developing countries have responded by taking the initiative in their own hands and creating innovative means of raising resources for the health sector.

Probably one of the best examples of a nongovernment initiative of health care financing is the success of medical aid societies in Zimbabwe. Private medical insurance in Zimbabwe is provided by medical aid societies (MAS) that developed in similar ways to the sickness funds in Germany and other central European countries (except that there is no attempt by government to enforce risk sharing and equalization of the funding base between funds), with schemes developing around particular occupational groups and to cover other categories of formal sector and prosperous informal sector workers. The systems of contributions contain some elements of solidarity within societies, but not between societies. The emergence of different packages of benefits within MAS reduces the degree of cross subsidization between members of societies, but has allowed membership to be affordable to a wider section of the community. However, at present the MAS are serving only a small part, and the relatively prosperous part, of the population.

Generally MAS work through employers, and in most cases employers pay some or

all or the contributions. However, groups of self-employed people can be accepted for membership. In general it seems that MAS are well run and efficient (the likely range for administration costs is 8-12% of turnover), and there is little evidence of systematic selection of low risk cases. On retirement members can continue in membership. Around 800,000 people (8% of the population) are currently covered by MAS schemes. In principle the MAS fund care and do not provide services directly, although there are some cases of investments by them in health care facilities (in principle on a commercial basis).

An important point to note is that MAS in Zimbabwe developed without a strong policy of legislative framework, and in response to a perceived need. This may have been an advantage in that they have become independent and well managed. However, it means that they have only a limited role in funding services that are a high priority for the majority of the population. But without this system of parallel funding it is likely, on the basis of comparison with countries at a similar stage of development, that more of the government budget would have been devoted to providing urban secondary and tertiary services. The lack of a policy framework may also explain why membership of MAS covers only part of the potential target group. It would be fairly easy for such arrangement to cover twice or perhaps three times the present membership. It is clearly possible for them to continue to grow at a rapid rate.

A nongovernment initiative that has not been very successful is that of “mutuelles” in Senegal. As a result of the petroleum shock, a long period of drought and a major currency devaluation, government allocation to the health sector declined significantly in real terms in the 1980’s. This led to a community initiative in the form of groups of people organizing themselves in an attempt to pool and maintain resources for health care at times of need. Formed on the principles of solidarity, democracy, autonomy, and dignity of individuals, these not-for-profit mutuelles tend to be ethnocentric and village based. For instance, FANDENE is an ethnic based mutual society in the village of Serrer Noon (population 2500) of a community called Peulhs. Supported by a local dispensary and the Saint-Jean de Dieu hospital that charges only half the regular tariff, the members of this mutual pay 1000 F per month as their contribution. Penalties for defaulting are severe: if the members default in their payment for more than three months, they are removed from membership and are required to pay 10,000 F if they wish to rejoin. Similarly, YOFF is a mutuelle in village Lebou, a suburb of Dakar, and has a membership of 2000 families. SOCOCIM, a society of cement workers, is an exception to the village ethnic community rule.

However, these mutuelles have not worked very well. One of the biggest problems that these societies have is poor financing and poor recovery. For instance, of the initial membership of 619 families in FANDENE, only 261 pay on time. Ethnicity is the only bond among the members, and they have no revenue generation or sustainable schemes of financing. As a result, these mutuelles have often been on the verge of being closed down.

Another interesting example is PROSALUD, which was initiated in 1983 with support of the government of Bolivia and the USAID/Bolivia. PROSALUD, is a civil, private, and non-profit association that was born as a result of three important factors: (i) the gradual deterioration of the health conditions of a significant part of the population due to the severe economic crisis in the early 1980's; (ii) the emergence of a transparent and deregulated market economy that came about with the structural adjustment of August 1985; and (iii) as an efficient alternative to the traditional public system of primary health care.

PROSALUD has, over the years, become a sustainable model for the provision of comprehensive and ongoing primary health services through decentralized, multi-purpose and permanent facilities. Currently, PROSALUD has 28 health centers serving a population of some 300,000 persons. PROSALUD offers health care services, social marketing of health products, training and applied research. With respect to providing health care services to the community, PROSALUD focuses on medical consultations, child birth, short-term hospitalization, family planning, dental care, laboratory analysis and immunizations.

Community health care services are complemented by a marketing program for health care products, with the objective of increasing the access to and utilization of these products, through pharmacies and non-traditional sources. Thus, while 75% of the total operating costs are covered by PROSALUD funds generated by user fees, the remainder 25% of operating costs are paid for from the income generated from marketing of health care products (e.g. contraceptives, glasses). Training activities and applied research generate minor additional resources.

Nongovernment initiatives have the potential of being very useful and successful means of raising resources for the health sector. However, in many developing countries such initiatives need a strong and sustained support of the government, as in Bolivia, or the organized sector, as in Zimbabwe. We feel that government efforts to raise additional resources for the health sector should include supporting and encouraging private initiatives as well, especially in view of the limited success of such government mechanisms as user charges, and higher allocations from tax revenue.

4. End Note

In this paper, we have examined the experience of resource mobilization for the health sector in five developing countries. These case-studies suggest that although governments often make decisions about *individual resource mobilization methods*, such as user fees or the level of general revenue financing, they rarely think in terms of a *strategy of health financing* that considers the overall mix of mix of methods, their interaction with one another, and their linkages with other components of the health care system. Not surprisingly, therefore, the success of even individual methods has been limited in terms of contributions to resources, efficiency, equity and quality of care, even if they have been well thought out and implemented. At the same time, a common weakness has been a tendency on the part of most governments to ignore the role of household spending at private providers in financing health services. On the more positive side, our studies show that where it has been possible, private and community initiatives have succeeded in raising funding in the health sector.

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Appendix 1: Executive Summaries of Three Case-Studies

Resource Mobilization for the Health Sector in Zimbabwe

Executive Summary

Rising demands from service users, and tight constraints on public funds for health care in Zimbabwe have led to a search for additional mechanisms to mobilize resources. There remains a strong case for a major continuing contribution from tax since it can help to provide universal access and a degree of equity. Options for additional resources come from higher levels of user fees, and wider availability of private insurance.

The constraints on taxation to support welfare programs come from a general objective of lowering taxes to encourage growth, and a plan to focus resources in spending that supports economic growth. Growth is encouraged by reductions in personal/company tax, tax holidays as an incentive for new investors and a reduction of import duty and tax. This may be partly offset by actions to reduce tax evasion. Overall it is unlikely that tax revenues will increase unless economic growth increases.

Revenue from taxation is the largest source of funding for health care but is expected to fall. Rates (local property taxes) have taken an increasing burden of the cost.

In 1980, at the time of independence, a policy of free health care for those on low incomes was introduced, and user fees had a declining role in financing services. Managing exemption from fees has been difficult and expensive. There is inevitably some injustice in who is exempted. Since the introduction of the structural adjustment Programme (ESAP) in 1990, more emphasis was placed on the fee collection. In 1995 all user fees in rural areas were suspended.

Private Insurance

Private medical insurance provided by medical aid societies (MAS). They are able to keep premiums low for a number of reasons: (a) negotiate charges each year with

practitioners and premiums and hospitals using their large buying power to keep charges low, (b) limited access to hospital services in rural areas where many insured government employees live, (c) the late or non-billing by government hospitals for services to MAS clients.

MAS funded services are subsidized by the government in a number of ways: (a) tax relief for 20% of employee MAS premiums as an incentive to participate in voluntary systems (b) some fees below the cost in government facilities. Private services may also affect access to public ones due to professionals moving from the public to the private sector.

There are 25 MAS in Zimbabwe which below to the National Association of Medical Aid Societies (NAMAS). They are not-for-profit companies, and have their origins in medical schemes for large companies and industries. A range of different contribution and benefit packages are available, including minimum packages and executive ones that will pay for expensive treatment abroad. Contributions are a mixture of those related to incomes and some related to expected cost of services, but there is no risk rating of individuals. Generally MAS work through employers, and in most cases employers pay some or all or the contributions. However, groups of self-employed people can be accepted for membership. In general it seems that MAS are well run and efficient (the likely range for administration costs is 8-12% of turnover), and there is little evidence of systematic selection of low risk cases. On retirement members can continue in membership. Around 6% of the population is currently covered by MAS schemes. In principle the MAS are funders of care and do not provide services directly, although there are some cases of investments by them in health care facilities (in principle on a commercial basis).

MAS agree prices with providers of care, and most payments for hospital services follow a price list known as the Relative Value Scale (RVS). This has some origins in research on costs, but does not claim to be a detailed analysis of relative costs. It does seem to ensure that the full costs of services provided for members by private providers is covered by fees. Although coverage of private insurance has been increasing rapidly, and the potential range of people to be covered has expanded with the introduction of low cost schemes with limited benefit packages. However, the expansion is ultimately limited by the large proportion of the population in the informal sector (around 70%) most of whom cannot realistically become members.

User Fees

There are two potential objectives of health service user fees: (a) raising of revenue to fund or part-fund the services, (b) generation of a set of financial incentives to encourage more efficient production and use of services. In particular they can be used to support the referral system, and avoid self-referral of simple cases to high level facilities. There is good evidence that some current use of facilities and

staffing is inefficient. However, it is important to note that more appropriate use of high level facilities would almost certainly increase costs, since more complex cases would be treated. It is important to find out about those who self-refer and how they are treated in hospitals to determine the extent to which self referral leads to inefficiency.

The current rule that funds from user fees are returned to government central funds means that there is no direct benefit to hospitals and clinics that collect them. There are plans to change this, and such a change might significantly increase fee collection. There is evidence to suggest that people are happy to make a contribution for a good quality service in preference to a free service which lacks basic resources.

User fees, with appropriate exemptions for those unable to pay, can be used to improve equity in access to services. However, it is more common for user fees to have negative effects on equity. Fees are currently set by the Ministry of Health and Child Welfare in consultation with the Cabinet. These apply to public and church related facilities.

Fees have been increased significantly, and if further increases are introduced it will be necessary to allow exemptions to some fees for poorer parts of the population. For this paper simple simulations were carried out for a range of fee levels and exemption packages. The results suggest that the current policy, if enforced strictly could generate around 20% of the income needed to support health care. Policies that aim to raise more from fees for services to relatively rich people might be able to increase this to 40%. However, this would mean that most of those with private insurance would be expected to pay full cost fees, and some services might more to private providers, with the consequent need to make cuts in public provision.

Lessons for Other Countries

The main conclusion of this work is that there is significant scope for more cost recovery, especially if those with insurance were to pay full cost fees. But, being realistic, this will still leave a need to find most (probably over 70%) of resources to found from other sources. The MAS provide insurance similar to that originally offered by the German sickness funds, and can be seen as a type of social insurance. It is clear that such arrangements can be established and can work well for higher income people and people working in the formal sector. It is also clear that it is difficult to expand this into the rest of the population. The system grew up without a strong policy framework, and the status of MAS in law has always be a bit ambiguous. MAS in law has always be a bit ambiguous. MAS are popular with members, and may be a platform for wider development of health insurance.

The history of user fees in Zimbabwe shows the common mixture of government desire to provide services free at the point of use, with particular attention paid to

ensuring good access for poor people, an d the need to provide incentives and raise revenue. Although user fees cannot do more that take a share of the cost of the current provision of health services, it is clear that a larger proportion of costs could be recovered. It is also clear that the current use of services is inefficient, but that more appropriate use of facilities would lead to higher overall costs.

Resource Mobilization for the Health Sector in Bolivia

Executive Summary

As part of its overall strategy of conducting policy-relevant research into matters that are likely to be of importance to government policy-makers and USAID missions in Africa, the Africa Bureau in USAID under its Health and Human Resources Analysis for Africa project commissioned the Data for Decision Making project (DDM) at Harvard University to conduct five case studies on resource mobilization for the health sector. Three of these case studies were carried out in sub-Saharan Africa, and two outside of Africa. One of the countries selected for this outside of Africa is Bolivia, and the present report describes Bolivia's experience with resource mobilization.

Located near the center of South America, Bolivia (area 1.1 million square km) has a population of approximately 7.0 million, of which 58% live in urban areas (table 1). Over 75% of Bolivians have indigenous roots, and are primarily Quechua and Aymara, though other ethnic groups can also be found in the Bolivian Amazon. Close to one third of the population is functionally illiterate (20% never attended school), and is concentrated in rural areas and among women. Approximately half of urban households and over 90% of rural ones have unsatisfied basic needs such as access to drinking water, sewage, and basic education and health services. The infant mortality rate is high by Latin American standards (75 per 1000 live births). Diarrhea and acute respiratory diseases continue to be the main sources of infant mortality, accounting for 32% and 19% of all deaths, respectively. The maternal mortality rate is also high by South American standards, at 390 per 100,000 live births.

Bolivia experienced an economic crisis in the beginning of the 1980's, with inflation averaging 46% monthly. In August 1985, Bolivia began a drastic structural adjustment program that stabilized the economy, reduced the role of the State in directly productive activities, and controlled its public finances. Inflation has remained steady between 8.5% and 14.5% over the last six years, and in the last three years the public sector deficit has not exceeded 3.2%. In the second phase of reforms in 1993 the "Popular Participation and Administrative Decentralization Reform" was introduced, which transferred resources and primary responsibility, with respect to planning and implementation of public investment projects, from the

central government to the prefectures and municipalities. This includes the public health care system previously administered centrally by the National Health Secretariat (SNS). As part of the structural adjustment program, Bolivia will begin a "Health Sector Reform" within the next few years, for which preliminary design studies and planning have already started.

The main sources of health care financing in Bolivia are (i) central government tax revenues, channeled through the National Treasury, and municipal revenues, including funds received from the central government, referred to as "co-participation funds,"; (ii) public health insurance funds; (iii) private health insurance and pre-paid medicine schemes; (v) user charges; and (vi) international cooperation funds.

Total tax collections of the central government have shown a steady increase over time, from Bs. 1166 million in 1989 to Bs. 2,435 million (approximately US$530 million) in 1994 (all figures in 1990 Bs.). Internal revenue has contributed to most of this growth, more than doubling over the five year period, while tariff revenue has registered only a modest 10% growth.

Public spending on health has increased from Bs. 226.10 million in 1989 to Bs. 346.31 in 1994 (all figures in 1990 Bs.), which represents a fall from 19.4% of total tax collection in 1989 to 14% in 1994. In 1995, the SNS spent about Bs. 477 million (US$99 million) at an average of Bs. 68 (approx. US$14) per person on recurrent costs related to health care. A bulk of this expenditure (around 85%) is on staff salaries (both medical and administrative), with the remaining going to other recurrent costs.

Central tax revenues support a vast network of public sector health institutions, which are administratively under the control of the National Health Secretariat. However, since the implementation of the Popular Participation Law, all SNS institutions have been transferred to Municipal Governments. According to the National System of Health Information, the number of registered institutions in the public health sector grew from 1,304 in 1990 to 1,788 in 1994, with a total of 7,203 beds, so that in 1994 there was one public sector health care provider for every 2,758 persons, or one bed for every 685 persons. SNS uses its tax funds to employ 2,011 doctors, i.e., 2.9 doctors for every 10,000 people.

In terms of utilization of SNS facilities, the 1992 national census indicates that 30% of the ill population seeks treatment from SNS facilities. SNS facilities have been particularly successful in immunization programs and mother and infant care. However, there remain a number of concerns regarding the equitable use of SNS facilities, since only 10% of those who sought treatment from SNS facilities belonged to the lowest per-capita spending quintile.

Another major source of financing for health care services in Bolivia is the system of public health funds (insurance) known as "Cajas de Salud". There are 7 health funds and 10 integrated insurance plans, and jointly they have 236 facilities with

3,123 beds. All public agencies are required by law to contribute to some public health fund, while private sector organizations have the option of affiliating themselves to a health fund, or contributing to pre-paid medicine schemes on behalf of their employees. Contribution rates to health funds are fixed at 10% of gross salaries. The system of public health funds receives no transfers from the National or Municipal Governments. In 1995, the public health funds system had a budget of approximately US$108 million, which represented an expenditure of US$67.8 for each potential beneficiary.

There is very limited use of private health insurance in Bolivia. Only a handful of companies offer health insurance policies, and these require very high annual premia. Pre-paid medicine programs are gradually becoming very popular. These programs charge an annual entry fee which gives the client the right to a given package of limited services. The average annual premium for these centers is US$215 per person. The most common packages are gynecological, pregnancy, dentistry, and geriatric services. These are low-risk health services, characterized by fairly predictable demand, for both the user and the provider.

Private physician offices and pre-paid medicine provide medical care primarily to the upper middle class, and are found almost exclusively in urban areas. According to repeated rounds of LSMS surveys, households with the highest disposable incomes use private health care providers in urban areas. Around 70% of all private sector users belong to the wealthiest 40% of the population, while only 15% belong to the poorest 40%. A disproportionately large 43% of all users belong to the fifth quintile, while less than 5% belong to the poorest 20% of the population.

There is little information available regarding out-of-pocket household expenditures on health care. According to the Survey of Household Budgets (EPF) carried out in La Paz, Cochabamba, Santa Cruz and El Alto in 1990, households spend an average of Bs.45 per month (approx. US$14) on health care, which is less than 4% of total household expenditures (Urquiola 1994). This proportion varies from 2.4% in the poorest quintile (quintile 1) to 4.9% in the richest quintile (quintile 5). Differences across quintiles is more pronounced in absolute terms; average monthly per capita spending in the first quintile is US$ 3.11, while in the fifth quintile it is US$38.3. On average, 40% of these expenditures are for drugs and the remaining 60% is for services (figure 6). These shares are similar to those in other Latin American countries (OPS/OMS, 1994). On the assumption that households in smaller cities and rural areas have lower expenditure patterns than the average household in the four main cities, total household expenditure on health in Bolivia can be estimated to be of the order of magnitude of between Bs. 375 million (US$117 million).

International cooperation funds also play an important role in the financing of the health sector, especially in terms of fixed investments, and several large projects have been funded by support from these funds. These projects have had a significant

impact on construction of new health centers, and have generally improved the quality of health care in these centers. International cooperation funds have contributed US$27.7 million per year at an average over the last six years.

Bolivia has an interesting private sector experience in financing primary health care. PROSALUD is a private, non-profit association that was born as a result of an USAID project in August 1985. PROSALUD offers: (i) health care services to the community; (ii) social marketing of health products; (iii) training services; (iv) applied research; and (v) technical assistance. At present, it has 28 health centers that serve a population of 300,000 people. Of the total operating costs, approximately 75% are covered by PROSALUD funds generated by user fees. The remainder 25% of operating costs are paid for from the income generated from marketing of health care products (such as contraceptives, eye-wear, etc.). Training activities and applied research generate minor additional resources. PROSALUD appears to be a sustainable model for the provision of comprehensive and ongoing primary health services through decentralized, multi-purpose and permanent facilities.

Bolivia has recently started a National Mother-Childhood Insurance program for women of child-bearing age and children under five. This insurance covers maternity care and complications resulting from pregnancy and childbirth. It also covers children under five in the case of diuretic illnesses and acute respiratory infections. The program is partly financed by funds from the Treasury, and partly by the co-participation funds that municipalities receive from the Treasury. Loans and donations from the international donor community cover infrastructure, equipment, training, follow-up and evaluation costs. The estimated total cost of the insurance program is US$14.1 million annually.

There are several important lessons from this study. First, given the new financing structure of public services, combined with the strict fiscal discipline in place since 1985, an increase in Central Government expenditures in the health sector is very unlikely. The Government is taking important steps to increase tax revenues, through better collection mechanisms and enforcement, but this increase is more likely to reduce the fiscal deficit rather than increase expenditures. Second, thanks to Popular Participation, Municipal Governments now have primary responsibility for the delivery of health services which, combined with greater social pressure at the local level, will most likely result in an increase in tax revenues at the municipal level. However, given the historical neglect in all public services in most municipalities, only part of this increase in revenue will go to health care. Third, there is a significant proportion of users of public health care facilities in urban areas (SNS and health funds) who belong to the highest income quintiles and could potentially pay higher user fees for the services they receive. At the same time, many high income patients who are eligible to use facilities belonging to public health funds actually choose private providers instead.

Our findings suggest that equity and efficiency issues in Bolivia's public health care system can be better addressed by more careful rationing of service delivery according to income. There is also some potential for increasing the contributing base to public health funds (medium and large size private firms, as well as micro-enterprises and the informal sector) which, combined with more careful rationing of users, would increase significantly the access to health care by the poor, especially in urban areas. At the same time, the government should evaluate different ways of making facilities belonging to health care funds more accessible to the rural poor. Also, it is recommended that the current financing structure (which separates staff costs from investment and other recurrent costs) be evaluated carefully in terms of the efficiency and sustainability of health care delivery. The strict fiscal constraints of the Central Government will limit the amount of staff costs that can be borne by the state, and the Municipalities will have to find alternative sources of finance for covering staff costs, such as increased user fees at their local health care facilities.

The Bolivian experience provides many important lessons for other countries considering decentralization in their health sectors. Decentralization certainly provides a more effective incentive structure for public health care facilities, and encourages more careful attention to finances, quality control, and defining priorities, though there is always the danger that national health priorities could be neglected. Decentralization also encourages local decision-makers to seek alternative sources of funds for health care. This may include higher user fees, specific taxes, or other mandatory contributions administered locally. The Bolivian experience also highlights the importance of carefully defining the financing responsibilities of central and local governments, since a purely technical separation of budget items by financing source may result in a sub-optimal mix of the various factors required for health care delivery.

Resource Mobilization in Sri Lanka's Health Sector

Executive Summary

Sri Lanka has especial significance for those examining the problems of how to mobilize resources in developing countries in order to achieve USAID Strategic Objectives in health, population, democracy and sustainable development. Despite an income level of only US $650 per capita, Sri Lanka has lowered its infant mortality rate to 17 and child mortality to 19, its total fertility rate to below replacement level at 1.9 (lower than USA), and raised life expectancy to 73 years at birth. It shows that resource-constrained low income countries can lower mortality and fertility rates close to the levels of the developed world, even under conditions of prolonged civil war, providing that the overall system for resource mobilization is fundamentally sound and sustainable. It is the only low-income country where AID has phased out all health and population assistance on the basis of the Strategic

Objectives no longer being applicable, and it is the poorest country to ever achieve below-replacement level fertility. Its health resource mobilization strategy has also contributed greatly to improving the welfare of its most disadvantaged citizens, and to the establishment and maintenance of democratic government.

Resources mobilized for the health sector have been modest, averaging 3.0-3.4% of GDP over the past half century. Sri Lanka completed its health transition in just fifty years, but maintained total national health expenditures at less than US $8 per capita per annum - less than in countries comprising 75% of Sub-Saharan Africa's population. Throughout, total public spending on health averaged less than 2% of GDP and US $5 per capita per year, below the US$13 cost of the World Bank's "cost effective" package of basic health services. Despite this, there is clear evidence that modern health services were necessary to achieve improved health status, complementing but not supplementing other public action, such as female education.

Sri Lanka has done this with a resource mobilization strategy that used available public and private funds in an effective, efficient, equitable and sustainable manner, and which maintained overall unit costs at low levels. It used all the key resource mobilization methods, but ultimately the most important and successful ones have been (i) general taxation and (ii) out-of-pocket spending at private providers. In the long run, greater gains were to be had from raising productivity in the public sector than by attempting to raise significant additional resources from public sector user fees or health insurance. These last two were never able to contribute significant resources or do so in an efficient or equitable manner.

General Taxation

General revenues were the primary funding mechanism for Sri Lanka's public health services for most of the past 2,300 years. This experience shows that: (i) public financing is sustainable when underlying culture nurtures social expectations about the legitimacy of the state funding health services for individuals, and consensus about societal obligations to help the less fortunate and suffering; and (ii) public financing of health is enabled by economic prosperity upon which successful tax effort depends. Since the 1920s general revenue spending on health has been income elastic; economic growth has always translated into increased health spending.

Sri Lankan culture may be receptive to the use of public funds for health, but the ballot box is the single most important variable behind its exceptional experience. Universal suffrage introduced in 1931 forced attention by policy makers to the health conditions of the majority. Early results of democratic government were introduction of progressive forms of taxation, such as income tax, and increases in the shares of general revenues and of national income allocated to health. Electoral

pressures protected health spending at times of fiscal contraction. Since 1940, public health spending has been maintained at 1.5 - 2.2% of GDP, and has contributed 60% of total health spending in the 1950s declining to 40% currently.

Electoral pressures ensure that general revenue financing is equitable. Taxes are mostly indirect and regressive, but 30% of government health spending goes the poorest 20% compared with less than 10% reaching the richest 20%. The net effect of general revenue financing is redistribution of income to the poor, and this compensates for greater private spending by richer households. Overall utilization of health services is high and equal across income groups. Two mechanisms led to this pattern of equity. First, when establishing health infrastructure in the 1940s-50s, electoral competition forced Sri Lankan policy makers to place greater priority on universal access than on consumer quality of health services. Health facilities were widely dispersed, MOH staff were not permitted to deny admission to any patients seeking care, and resulting occupancy rates of over 200% were officially tolerated. Second, technical quality has been maintained in public health services as consumer quality was kept low. The existence of differentials in consumer quality have encouraged richer Sri Lankans to opt to pay for private services in the private sector, leaving technically adequate, but poor consumer quality, government services for the poor. Self-selection ensures targeting of services without formal means testing. Testing would be inefficient and expensive, since Sri Lankans naturally under-report incomes when asked. Sri Lanka does not means test, but achieves the most equitable distribution of public health spending known in any developing country.

Reliance on general revenue funding at times of government fiscal constraints makes it difficult to meet increased demand. Sri Lanka solved this problem, not by turning to additional mechanisms, but by halving unit costs in the public sector during the 1950s-70s. Annual MOH utilization was raised from 1.5 to 2.5 outpatient visits per capita and from 8 to 16 admissions per 100 capita, while general revenue funding remained constant. Overall unit costs in the MOH are the lowest observed anywhere, and are several times lower than in some developing countries. Consideration of political and institutional factors suggests that this is only possible with a salaried public sector medical workforce, and not if providers were private contractors paid by public financing through insurance or capitation.

Out-of-pocket Household Spending

Out-of-pocket household spending generated a stable 1.1 - 1.8% of GDP during 1950-90. It is an effective method of raising resources for privately provided primary health care, but not for inpatient care and catastrophic illness. It is voluntary and thus presents no political difficulty unlike user fees. In the 1950s-60s, household spending went mostly to traditional healers, and had little health impact. Free government health services educated Sri Lankans about modern

medicine, and led eventually to a switch in demand from traditional healers to modern private providers. Tax funding in effect changed the market for private care by reducing lack of information on the part of consumers. Today out-of-pocket spending contributes 80% of total resources for modern primary health care services. The evidence shows that general practitioners in Sri Lanka's private sector provide care of high quality, providing a significant share of all immunizations, antenatal and post-natal care and treatment of mothers and children.

Public Sector User Fees

Means-tested fees were used for revenue mobilization by MOH before 1951. Except when they were charged for sales of an addictive substance(opium), they never contributed more than 10% of total recurrent MOH costs, and typically less than 5%. More vigorous fee collection would not have raised collections as most people were too poor to be liable. Applied without income exemptions during 1971-77 by a Marxist Finance Minister, user fees were again unsuccessful. Cost recovery averaged less than 3% of MOH recurrent costs. These benefits were not justified by the impact on utilization, which fell 30% overall, and more amongst poorer Sri Lankans.

In order to protect the poor and raise significant resources, there must be an efficient means testing system. Sri Lanka has much experience with means testing welfare benefits, but methods used are either inefficient or administratively expensive. Until substantial economic development takes place, it is unlikely that the government can develop a cheap, efficient and fair system of measuring incomes. When such methods are developed, raising income taxes would anyway yield more revenues more equitably than user fees charged to sick people.

User fees are politically sensitive. Their introduction in 1971 contributed to the subsequent election defeat of the government. Its successor gained important political support for its program of economic liberalization by abolishing user fees. Opinion poll data indicate that over 75% of Sri Lankans disapprove of a policy of charging user fees at MOH facilities. Opposition is greater for inpatient fees than outpatient care. Many are willing to voluntarily pay for their own private care or support a market economy, but believe that it is important to have free health care available to all who want. Sri Lankan voters show evidence of social solidarity on this issue, and appear to be closer to West Europeans than Americans in their attitudes. For a Sri Lankan regime intent on market-oriented economic reforms, introducing user fees appear unlikely to bring any economic benefits which would justify the associated electoral costs.

Private Insurance and Employer Schemes

Private insurance and employer provided care cover less than 2% of the Sri Lankan population, and contribute a similar proportion of total national health expenditures. The health insurance market is small, but is competitive with many suppliers. The fundamental constraint to a greater role is the limited size of the formal employment sector in an economy which remains predominantly rural and poor.

Analysis of insurance data indicates that the major beneficiaries of resource mobilization through insurance are the formally employed adults of working age. There is also a strong urban bias, with more than 90% of beneficiaries from Colombo. Private health insurance does very little to mobilize resources for the elderly, the poor, the chronically sick and the rural population. It appears to be an inefficient mobilization mechanism as well, with almost 40% of total premiums going to pay for administrative costs and insurance company profits. During 1993-5, there was significant insurance-induced price escalation in the out-patient market for insurance beneficiaries. This suggests that much of the additional resources mobilized through insurance contributes to higher profits by providers and not greater utilization of services.

Private health insurance may benefit the health sector, if it shifts patients from MOH facilities to the private sector, thus releasing resources for other patients. However, such gains are likely to be small, since the price of private services in the insurance market is several times greater than the cost of providing the same services in the public sector. More worryingly, the net impact on revenue mobilization may even be negative. The implied tax subsidy per beneficiary for some schemes is already greater than per capita government health expenditures, so the net cost-savings achieved by MOH may be less than the revenue loss experienced by the government.

Lessons for Other Countries

Low income and fiscal constraints are not barriers to improving health. Low mortality and low fertility and a decent health infrastructure can be achieved in some countries by spending considerably less than the cost of the US$13 minimum package. In the face of increasing demand for health services and tight fiscal constraints, policy makers should not assume that additional resource mobilization is the only solution. Sri Lanka in the same circumstances found that productivity increases in the public sector yielded more than likely alternative resource mobilization mechanisms.

When mobilizing resources for health, general revenues are the most important mechanism available to governments. When functioning well, health systems funded through general taxation can be more equitable and efficient than any

alternative, and will redistribute significant income to the poor, even when taxation is regressive. Maintaining government health services at low levels of consumer quality can promote equity in the presence of a private sector by persuading richer individuals to seek private care. Since poor countries never have sufficient resources to pay for all demanded care, it is more equitable to persuade richer individuals to pay for their own treatment. Of the three options for private financing (direct payment of private providers, public sector user fees and private health insurance), Sri Lanka found that out-of-pocket spending in the private sector is the most superior. Unlike user fees, it is voluntary and so is not politically contentious, and protects the poor since there is no need to identify them. Unlike insurance it does not lead to problems of cost-escalation in the private sector, and does not entail any additional costs such as administrative expenses or public regulation of insurance companies.

Out-of-pocket spending works best for primary health care, where consumers are most likely to have experience about different providers and services. Households can pay for most outpatient primary health care, but they remain unable to pay for catastrophic care, such as inpatient treatment. Since private insurance was not a feasible option and private charity was inadequate, Sri Lanka had to use general revenues for inpatient treatment. Over time, as people were educated about modern medicine, Sri Lanka found that primary health care can be adequately financed mostly though out-of-pocket payments, but that hospital inpatient treatment required continuing public funding. Sri Lanka found that using public funds for hospital provision, and private funds for primary health care was ultimately the most sensible solution to funding health care. This maybe contrary to much conventional wisdom, but other countries should appreciate that such alternative arrangements do exist and can work.